



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,055	09/27/2006	Aidan Doherty	6947-73362-01	3696

24197 7590 09/17/2010  
KLARQUIST SPARKMAN, LLP  
121 SW SALMON STREET  
SUITE 1600  
PORTLAND, OR 97204

EXAMINER
----------

HUTSON, RICHARD G

ART UNIT	PAPER NUMBER
----------	--------------

1652

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

09/17/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

tanya.harding@klarquist.com  
docketing@klarquist.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,055	<b>Applicant(s)</b> DOHERTY ET AL.	
	<b>Examiner</b> Richard G. Hutson	<b>Art Unit</b> 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,8,10-21,23-27,31 and 34-43 is/are pending in the application.
- 4a) Of the above claim(s) 15-17,24-27 and 34-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 8, 10-14, 18-21, 23, 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/2/2010 has been entered.

Applicant's amendment of claims 1, 5, 8, 15, 18, 21, 24, 26, 31, 34, 35 in the paper of 8/2/2010, is acknowledged. Claims 1, 5, 8, 10-21, 23-27, 31, 34-43 are still at issue and are present for examination.

Applicants' arguments filed on 8/2/2010, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Claims 15-17, 24-27 and 34-43 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Specification***

The disclosure is objected to because of the following informalities:

The objection to the figure 12 is withdrawn on the basis that this figure does not contain 10 consecutive nucleotides as discussed in the paper of 7/6/2010.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 8, 10-14, 18-21, 23, 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 5, 8, 10-14, 18-21, 23, 31 are indefinite in the recitation “shares at least 95% sequence identity with the amino acid sequence of accession number CAB08492 (SEQ ID NO:91)”. Specifically, the recitation that the referred to polypeptide “shares” at least 95% sequence identity is unclear as it is unclear as to how the two polypeptides share 95% sequence identity. It is suggested that an amendment such as “[shares] has at least 95% sequence identity” would be more appropriate.

Additionally the above recitation is unclear in the reference to that which sequence identity is shared in the recitation "the amino acid sequence of accession number CAB08492 (SEQ ID NO:91)" or "the amino acid sequence of accession number CAB08491 (SEQ ID NO:92)". It is suggested that if it is applicants intent to reference the amino acid sequence of SEQ ID NO:91 or SEQ ID NO:92, that such be done so directly and not using the reference to the accession number followed by the sequence identifier in parenthesis, such as "the amino acid sequence of SEQ ID NO:92"

The rejection of claims 1, 5, 8, 10-14, 18-21, 23 and 31 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is hereby withdrawn based upon applicants amendment of the claims and applicants arguments presented in the paper of 7/6/2010 and 8/2/2010.

The rejection of claims 1, 5, 8, 10-14, 18-21, 23 and 31 are rejected under 35 U.S.C. 112, first paragraph, based upon the lack of full scope of enablement is hereby withdrawn based upon applicants amendment of the claims and applicants arguments presented in the paper of 7/6/2010 and 8/2/2010.

***Claim Rejections - 35 USC § 102***

The rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Mahajan et al. (U.S. Patent No. 5,976,806) as evidenced by Srivastava et al. (Journal of Biological Chemistry, Vol. 280, No. 34, pp 30273-30281, 2005) is hereby withdrawn based upon applicants amendment of claim 1 to require that the DNA ligase polypeptide shares at least 95% amino acid sequence identity with the amino acid sequence of accession number CAB08492 (SEQ ID NO:91). It is noted that Mahajan et al. does not teach a DNA ligase polypeptide which shares at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO:91.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cole et al., Uniprot Accession No. P71571, 5-30-2000.

Cole et al., Uniprot Accession No. P71571, 5/302000. teach a nucleotide sequence isolated from Mycobacterium tuberculosis that encodes a DNA ligase-like protein Rv0938/MT0965 that is 100% identical to the amino acid sequence of SEQ ID NO:91.

One of skill in the art at the time of filing would have been motivated to confirm the identity of this protein by contacting a nucleic acid molecule with the isolated encoded ligase polypeptide as a means of confirming the function of the protein. The expectation of success is high based upon the high level of skill in the art at the time of filing and the fact that Cole et al. teach all that is needed regarding the protein to verify its identity.

Thus claim 1 is obvious over Cole et al., Uniprot Accession No. P71571, 5/302000.

***Remarks***

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Hutson whose telephone number is 571-272-0930. The examiner can normally be reached on M-F, 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mondesi Robert can be reached on 571-272-0956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

rg  
9/6/2010

/Richard G Hutson/  
Primary Examiner, Art Unit 1652